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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/059,533	04/13/98	HAUCK, J	042390.P5379

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EXAMINER	
TORRES, J	
ART UNIT	**PAPER NUMBER**
2133	4

DATE MAILED: 12/06/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/059,533	HAUCK ET AL.	
	Examiner	Art Unit	
	Joseph D. Torres	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 September 1998* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)
16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
18) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other: .

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: On page 1, line 23, "packet and after" should be "packet. After", i.e., start a new sentence. The sentence starting on line 25 of page 1 and ending on line 3 of page 2, is unclear and should be rewritten. On page 5, line 17 and on page 6, line 6, "of the PHY 10" should be "of PHY 10". On page 7 line 9, "resent later" should be followed with a comma.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 to 11 are rejected under 35 U.S.C. 102(b) as being anticipated by the IEEE 1394 standard for a High Performance Serial Bus and the IEEE 1394A enhancements to IEEE 1394 (see, for example, "IEEE Standard for a High Performance Serial Bus", IEEE Std. 1394, published by IEEE Inc., New York, NY, 1996).

Note: In the following, the "IEEE Standard for a High Performance Serial Bus", IEEE Std. 1394-1995, published by IEEE Inc., New York, NY, 1996, will be referred to as Reference 1.

The IEEE standard anticipates Claims 1, 2, 4 and 5 with a specification for a high-speed high-performance serial bus (see Abstract, Reference 1). The IEEE standard provides

flexible support for two-way communication over a high performance serial bus that allows up to 16 physical connections between any two devices (page 1, Section 1.1, Reference 1). Figure 7-3 (see Section 7.3.5.1, page 188, Reference 1) depicts "an inbound primary packet from another node", i.e., a source node, and the reaction of the transaction layer to a busy acknowledge, i.e., a "NAK". Sections 7.3.5.1.1 to 7.3.5.1.4, Reference 1, describe transaction layer operations in detail. Especially note; on page 190, Section 7.3.5.1.4, Reference 1, during the Transition OSR1:OSR1 operation, the transaction layer chooses not to re-queue the pending retry. See also Sections 7.3.5.2.2 and 7.3.5.2.4 Page 192-197, Reference 1, for more details especially noting the Transition ODR2:ODR0b operation on page 197. See Section 8.2.2, page 201, Reference 1, for discussion of BANDWIDTH_AVAILABLE register. Note: On Page 7, Lines 5-10 of the applicant's disclosure, the applicant describes the process of aborting packet transmission as follows: Upon sending a NAK, "the destination node asserts its arbitration request", aborts the transmission of a packet, that "the packet must be sent later" and "the remaining packet time may be reclaimed". On page 31, 3.6.2.4, Reference 1 states "an acknowledge code is used by the destination node to notify the sending node that it is busy" (i.e. a NAK, see applicant's disclosure, page 5, lines 8-10). Furthermore, sources using "dual-phase" retry shall retry the subaction during every four fairness intervals (page 31, 3.6.2.4, paragraph 5). Fairness intervals are arbitration reset gaps to give each competing source, using the fairness protocol, an opportunity to use the bandwidth for transmission/reception (page 14, definition of "fairness interval").

Essentially, there is no difference between aborting transmission to send it at a later time and providing a fairness gap.

The IEEE standard anticipates Claim 3. See Section 3.6.4, page 32, Reference 1. During Isochronous arbitration, services can be provided "by giving the highest priority access to a cycle master that maintains a common clock source", i.e., the root in a cable environment and the node with the highest possible arbitration number in a backplane environment.

The IEEE standard anticipates Claim 6. If the transaction retry limit is exceeded during the Transition OSR1:OSR1 operation, the transaction fails and is timed out (Section 7.2.2, page 176, Reference 1). See, also Section 3.6.2.4, Retries, page 31, Reference 1, for details.

The IEEE standard anticipates Claim 7. Section 3.7.3.1.1 and 3.7.3.1.2, pages 38 and 39, Reference 1, present a typical tree-topology. Also, see comments to Claim 3 rejection above.

The IEEE standard anticipates Claim 8. See Figure 7.3 page 188, Reference 1.

The IEEE standard anticipates Claim 9. Figure 4-25, 7-3 and 7-5, pages 107, 188 and 191, respectively, of Reference 1, depict state machines for generating a NAK in response to a primary packet. In addition, a transceiver is an inherent part of any communications systems, in order to connect the information source to the channel and/or to connect the channel with the information user.

The IEEE standard anticipates Claim 10. See Figure 7.3 page 188, Reference 1.

The IEEE standard anticipates Claim 11. See comments to rejection to Claims 1, 2, 4 and 5, above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yu et al. (US 4831518) teach a multiprocessor interrupt queue mechanism to handle pending queues for a plurality of CPUs and could be used as a 102(b) reference. The following references could either be used as 102(b), 102(e) or 103(a) references: Farrand et al. (US 5257384) teach a protocol for communicating messages between a manager for a computer system and a remote facility. Takahashi et al. (US 4779274) teach a request-repeat system for data communication. Nagasawa et al. (US 4584684) teach a data transmission method according to which the signal receiving side produces a response code for requesting a text in response to a start request. Newman et al. (US 4860292) teach a method of communicating between two control units. Kuranami et al. (US 4896151) teach a simultaneous communication method. Stirling et al. (US 5923662) teach a local communication system with a number of stations interconnected for the communication of messages via a serial data channel. Chen (US 5987061) teaches a high-speed modem for use on standard telephone twisted-pair lines. Matsumoto et al. (US 4985890) teach a data transmission unit that can receive data through a plurality of parallel input-side transmission paths. Bishop et al. (US 4914653) teach a communication system having a communication medium and a plurality of stations communicatively connected to the medium. Duckwall (US 5802048 and US 5495481) teaches a methods and circuitry for arbitrating for

control of a serial bus. Traw et al. (US 6012117) teach an arbitration method for access to a serial bus. Seifert, Jr. et al. (US 3866175) teach a system for communicating data between a central processor and a plurality of remote interactive data terminals. LaFollette et al. (US 6038234) teach a method and apparatus for early arbitration in a full duplex bus system. "P1394A Enhancements", January 3, 1997 teaches a specification for a high-speed high-performance serial bus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is 703-308-7066. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (703)305-9595. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3718 for regular communications and (703)305-3718 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Joseph D. Torres
November 30, 2000

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